Kimya PETG Carbon 3D Filament

The Kimya **PETG Carbon** 3D filament is a mixture of PETG and carbon fibers. The addition of carbon fibers to PETG provides high levels of mechanical performance. Thanks to its rigidity, the PETG Carbon is highly valued in the production of special parts, notably in the automotive fields. The Kimya PETG Carbon 3D filament has the following properties:

- High rigidity
- Improve ratio between: Ease of printing / Rigidity
- Complies with the **REACH and RoHS standards**

2-year KIMYA warranty.

FILAMENT PROPERTIES

PROPERTIES	TEST METHODS	VALUES
Diameter	INS-6712	1.75 ± 0.1 mm 2.85 ± 0.1 mm
Density	ISO 1183-1	1.28 g/cm3
Melt flow index (MFI)	ISO 1133-1 (@225°C – 2.16 kg)	6.5 g/10min
Glass transition temperature (Tg)	ISO 11357-1	78 °C

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
Printing Speed	10 mm/s
Infill	100% - rectilinear
Nozzle Temperature	250°C
Bed T°	85 - 90°C

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	VALUES
MECHANICAL PROPERTIES	Tensile modulus	ISO 527-2/1A/50	7,773.3 MPa
	Tensile Strength	ISO 527-2/1A/50	92.9 MPa
	Tensile strain at strength	ISO 527-2/1A/50	1.9 %
	Tensile Stress at Break	ISO 527-2/1A/50	92.9 MPa
	Tensile strain at break (type A)	ISO 527-2/1A/50	1.9 %
	Flexural modulus	ISO 178	5,664 MPa
	Deformation at Flexural Strain	ISO 178	4.2 %
	Flexural strength*	ISO 178	138 MPa
	Flexural stress at conventional deflection (3,5% strain)*	ISO 178	120.6 MPa
	Flexural stress at break	ISO 178	42.2 MPa
	Deformation at Flexural Strength	ISO 178	3.1 %
	Charpy impact resistance	ISO 179-1/1eA	4.6 kJ/m²
	Shore Hardness	ISO 868	78,8D
Note 1	*According to ISO 178, end of the test at 5% deformation even if there is no specimen break.		
Note 2	The data should be considered as indicative values - Properties can be influenced by production conditions.		

Created on 13/08/2018 - Revised on 16/06/2022.

KIMYA SAS - 20 RUE CHEVREUL
44105 NANTES – FRANCE
TEL. : 02 40 38 40 00 – EMAIL : kimya@armor-group.com
www.armor-group.com/kimya